



USDA ARS National Animal Germplasm Program

Testis collection, shipping and sperm extraction protocol

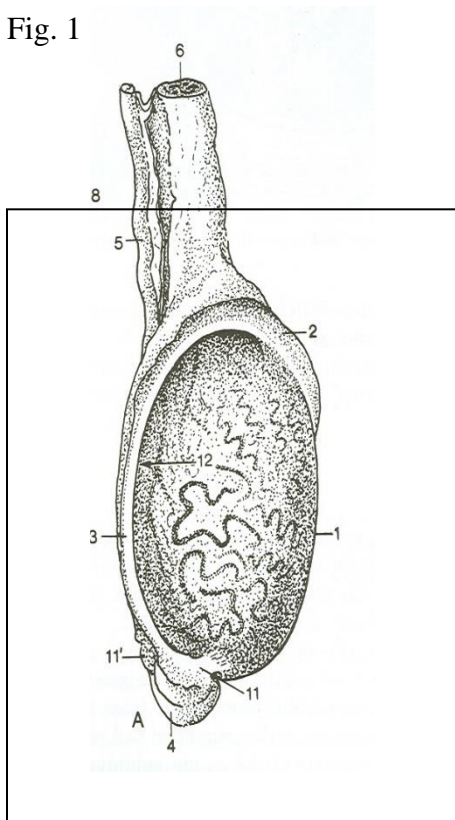
Transportation:

Prepare the shipping box prior to preparation of the testes. Please see the Impact Shipper Protocol on the Animal GRIN webpage noting the specific temperatures for each species and type of tissue. Testes are always shipped at 5 °C and it is critical to wrap them in a thin layer of bubble wrap, or some other insulating material, so that the testes do not come in contact with the ice blocks during shipping. <https://www.ars.usda.gov/plains-area/fort-collins-co/center-for-agricultural-resources-research/paagrpru/docs/animal/animal-protocols/>

Testis collection:

Figure 1 is a diagram of an excised testis. The tissue inside the box in Figure 1 is what should be excised, package and shipped. After removing the testes from the animal, place each testis in its own plastic, sealable bag, labeled with the name of the animal, and seal the bags.

Fig. 1



Sperm collection:

Upon receipt, wash the whole testis with 70% ethanol and rinse with PBS prior to sperm collection.

Sperm collection:

Excise the cauda epididymides and flush them using a hypodermic needle and syringe filled with room temperature, species-specific, isotonic saline;

-OR-

Excise the epididymides, place them in a petri dish, and eviscerate the tissue with a clean scalpel to remove the sperm. Massaging the tissue will aid in releasing the sperm from the epididymides.

Dilute the concentrated sperm with species-specific, room temperature, isotonic saline to remove it from the petri dish.

Determine the sperm motility, sperm concentration, and sample volume.

Utilize the sperm for artificial insemination or freeze the sample using the species-specific protocols described on the National Animal Germplasm Program Animal GRIN web pages.

Versions: September 2017, April 2020